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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,175	10/28/2003	Jean-Pierre Aynie	1948-4823	6562
27123	7590	09/23/2004	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			HAN, JASON	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/696,175

Applicant(s)

AYNIE ET AL.

Examiner

Jason M Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 1, 7 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The amendment to the claims filed on October 28, 2003 does not comply with the requirements of 37 CFR 1.121(c) because a clean copy of the amended claims has not been provided. Amendments to the claims filed on or after July 30, 2003 must comply with 37 CFR 1.121(c).
4. The disclosure is objected to because of the following informalities: The sectional headings have been omitted. Appropriate correction is required.

### ***Claim Objections***

5. The claims are objected to because of the following informalities: Grammatical errors are replete throughout (i.e. "towards" should be rendered "toward" with regards to plurality). Appropriate correction is required.
6. Claim 1 is objected to because of the following informalities: Please follow the format for claims found in MPEP 2111.02 (preamble) and MPEP 2111.03 (transitional

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statements). The examiner requests a clear and concise statement, whereby there are no embedded preamble and transitional statements. Appropriate correction is required.

7. Claim 7 is objected to because of the following informalities: It is unclear exactly how the reflection face is obtained by anamorphosis. Anamorphosis primarily deals with distorted projections or images that must be viewed at a specific angle or with a special instrument to render a clear representation. How then can a reflection face be obtained with anamorphosis? It is conceivable that a projection a light ray could perhaps undergo anamorphosis for the purpose of wider distribution. If so, then please positively state this to render a clearer interpretation.

8. Claim 29 is objected to because of the following informalities:

- a. In Line 3 of the claim there is a grammatical error – “the” used twice;
- b. Nowhere in the specification does the applicant show said light engine integrated in the light source. It would seem the vice versa whereby the light source is integrated in the light engine. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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9. Claims 1, 5, 13, 15, 20 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kondo et al. (U.S. Publication 2002/0024818).

10. With regards to Claim 1, Kondo discloses an LED lighting device for a vehicle having a light source [Figure 1: (2)] mounted with an optical axis centered about a coaxial annular reflector [Figure 1: (5)]; an optical component/light engine [Figure 1: (4); Figure 4: (7)] made of a transparent resin [Page 2, Paragraph 33 – it is inherent that the refractive index is greater than air, since air is commonly considered absolute at ~1.00] and positioned in front of the light source, further including an inlet face [Figure 4: (7b)] wherein most of the light from the light source penetrates [Pages 1&2, Paragraphs 18-21], an outlet face having a radial disposition and located within the coaxial annular reflector [Figure 4: (7d)], and a front inner reflection face [Figure 4: (7a)] whereby light from the light source is deflected thereof toward the outlet face, and then to the coaxial annular reflector.

11. With regards to Claim 5, Kondo discloses the optical component/light engine having a conical front reflection face [Figure 4: (7a)] centered about an optical axis of the light source [Figure 1: (X)], whereby light reflected at a predetermined angle from the front face strikes the outlet face at an angle of incidence [see Summary of Invention].

12. With regards to Claim 13, Kondo discloses a front reflection face [Figure 4: (7a)] adjacent to a front central outlet face [Figure 4: (7c)] that refracts light towards the front.

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13. With regards to Claim 15, Kondo discloses an inlet face of the optical component/light engine having a concave hemispherical portion [Figure 4: (7b)] centered about a light source [Figure 4: (2)].

14. With regards to Claim 20, Kondo discloses the coaxial annular reflector having a reflective surface [Page 1, Paragraph 18], and wherein the front face of the reflector has at least one axial section that is parallel to the front reflection face of the optical component/light engine [Figure 1: (4, 5); Figure 3: (4b, 4c)].

15. With regards to Claim 30, Kondo discloses an LED lighting device for a vehicle having a light source [Figure 1: (2)] mounted with an optical axis centered about a coaxial annular reflector [Figure 1: (5)]; an optical component/light engine [Figure 1: (4); Figure 4: (7)] made of a transparent resin [Page 2, Paragraph 33 – it is inherent that the refractive index is greater than air] and positioned in front of the light source, further including an inlet face [Figure 4: (7b)] wherein most of the light from the light source penetrates [Pages 1&2, Paragraphs 18-21], an outlet face having a radial disposition and located within the coaxial annular reflector [Figure 4: (7d)], and a front inner reflection face [Figure 4: (7a)] whereby light from the light source is deflected thereof toward the outlet face, and then to the coaxial annular reflector.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2-4 are rejected under 35 U.S. C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above, and further in view of Zwick et al. (U.S. Patent 5582480).

With regards to Claim 2, Kondo teaches an LED lighting equipment for a vehicle having an optical component/light engine as described above. Kondo further teaches the optical component/light engine having a rear inner reflection face [Figure 3: (4b)] of concave parabolic shape, which is focused on the light source and reflects light axially towards the front. The examiner duly notes that the embodiment contrasts from applicant's invention wherein the rear reflection face surrounds the light source and whereby partial light from the light source is first reflected off the rear face towards the front. The examiner considers the difference in embodiments a matter of design preference and still functionally equivalent. It should be noted that Kondo compensates for light first reflected off a rear face whereby a hyperboloid design is implemented to efficiently receive and utilize the light from a light source [Pages 1&2, Paragraphs 18-26], and thereby eliminating a need for such a reflector. The design preference is a matter of optics, and again, the differing embodiments are considered functionally equivalent for the purpose of uniformly distributing a light.

Kondo does not specifically teach, as mentioned above, the optical component/light engine having a rear inner reflection plate whereby light from the light source is first reflected thereof towards the front.

Zwick discloses a light assembly for motor vehicles having a rear reflection face of concave parabolic shape [Figure 2: (8)] focused about a light source [Figure 2: (5)], which reflects rays of light toward the front.

It would have been obvious to modify the lighting device of Kondo to incorporate the rear reflection face of Zwick by eliminating the hyperboloid design in order to decrease the depth of the lamp/lighting device. The modification is accomplished by removing [Figure 2: (h1)] of Kondo, placing the rear reflection face of Zwick to surround the light source, and then positioning the optical component/light engine at a predetermined distance from the light source to ensure appropriate reflection of the light. It should further be noted that the vice versa of said modification may occur, corroborating said functional equivalence and design preference noted above, whereby a light prism of Zwick [Figure 6: (17)] may be replaced with the optical component/light engine of Kondo.

17. With regards to Claim 3, Kondo teaches a front inner reflection face that is disposed axially opposite the light source [Figure 3: (4c); Figure 4: (7a)]. Zwick also teaches a front inner reflection face [Figure 2: (23)] that is disposed axially opposite of the rear reflection face, whereby light from the light source is first reflected off the rear face and then further reflected off the front inner reflection face towards a coaxial annular reflector [Figure 2: (11, 12)]. Structural design of the prism is considered negligible in this case (e.g. modified w/ optical component/light engine of Kondo), and is a matter of optics [Column 4, Lines 24-27].



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18. With regards to Claim 4, Kondo teaches an outlet face of convex hemispherical annular shape [Figure 4: (7d)] that is associated with a parabolic front reflection face [Figure 4: (7a)], and which is centered on a focus of the associated parabola [Figure 4: (f2)]. The configuration of Kondo is functionally equivalent to the limitation whereby light is reflected off a front inner face through an outlet face towards a coaxial annular reflector, which then reflects light parallel to the optical axis of the lamp.

19. Claim 6 is rejected under 35 U.S. C. 103(a) as being unpatentable over Kondo as applied to Claim 5 above.

Kondo teaches a front conical reflection face [Figure 3: (4c)] having a vertex substantially equal to ninety degrees [please further note Figure 2: (17) of Zwick], and wherein there is a substantially cylindrical outlet face arranged radially opposite the conical face. It should be noted that the above embodiment requires modification in removing the reflective surface (4b) of Figure 3 and positioning the optical component/light engine accordingly (predetermined distance from the light source) to fulfill the limitations. Such a modification is again a design preference and a matter of optics, and the reference's previous embodiment remains functionally equivalent as stated above.

20. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 3 above, and further in view of Torguet (U.S. Patent 3799652).

Kondo teaches a front reflection face as described above in Paragraphs 10 and 16-17.

Kondo does not specifically teach the front reflection face designed to utilize anamorphosis to distribute and spread a light from a source.

Torguet teaches an optical deflection system that utilizes anamorphosis to distribute and spatially project a radiant energy beam (i.e. light) [see Abstract].

Though not specifically stated, Kondo's invention does utilize an optical component/light engine that functions equivalently in spatially spreading a light beam. It would have been obvious to modify the front reflection face of Kondo to further incorporate the anamorphosis teaching of Torguet for an efficient and wider distribution of the light beam. It should again be noted that anamorphosis, though not explicitly, is commonly seen and implicitly taught within the field of the art.

21. Claim 8 is rejected under 35 U.S. C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above.

Kondo teaches an optical component/light engine [Figure 5] having a peripheral annular portion [Figure 5: (6)] that extends transversely outwards and which further has coaxial circular ridges along the optical axis of the lighting device. It should be noted that the above embodiment requires modification in positioning the optical component/light engine closer to the light source [Figure 1: (2)]. This will eliminate the hyperboloid of Kondo and allow for partial light from the light source to directly contact the peripheral annular portion. The result of such a modification may decrease depth of the lighting device; however, the modification is a matter of optics, and the embodiment taught by the reference remains functionally equivalent.

22. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Zwick et al. as applied to Claim 2 above, and further in view of Carel (U.S. Patent 4177505).

With regards to Claim 9, Kondo in view of Zwick teach an optical component/light engine having a front reflection face as described above in Paragraphs 10 and 16.

Neither Kondo nor Zwick specifically teach the front reflection face provided with catadioptric patterns.

Carel discloses an indicator light incorporating a catadioptric element for an automobile [see Abstract].

It would have been obvious to modify the front reflection face of Kondo with the rear reflection face of Zwick to further incorporate the catadioptric element of Carel in order to provide a stronger illumination at the front portion where the optical component/light engine is located while still reflecting partial light to the coaxial annual reflector for a wider and uniform distribution.

23. With regards to Claim 10, Kondo teaches an outlet face at least partly coincident with a rear reflection face [Figure 3: (4b)].

24. With regard to Claims 11-12, Carel further teaches the catadioptric elements having prisms that are typically trirectangular trihedrons [Column 1, Line 14]. Such trihedrons may be arranged to reflect or refract according to design preference. To quote Carel, "In a usual embodiment, some of these prisms are separated by flat surfaces parallel to the outer surface of the catadioptric element so that, the catadioptric element being associated with a lamp and a reflector, the zone the flat surfaces acts as

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a plate with parallel faces so as to transmit the light rays from the lamp or reflected on the reflector without deflecting the direction thereof, the catadioptric prisms then functioning, for a beam of determined directions of incidence with respect to the axis of these prisms, as total-reflexion prisms [Column 1, Lines 15-25; underlines added by examiner].”

25. Claim 14 is rejected under 35 U.S. C. 103(a) as being unpatentable over Kondo as applied to Claim 13 above.

Kondo teaches a front central outlet face as described above in Paragraph 12. Kondo does not specifically teach the front central outlet face comprising a series of elementary dioptric distribution elements. However in Figure 1, Kondo illustrates a front lens having a number of dioptric elements (6a), which is commonly known within the art, for assisting vision and focusing a light. It would have been obvious to further modify the central outlet face to include multiple dioptric elements to provide a lamp with a desired optical effect in altering a light beam.

26. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above.

Kondo teaches an inlet face as described in Paragraph 10 above. Kondo does not teach the inlet face having a central portion that forms a collimator. However in Figure 4, Kondo illustrates a collimator (7c) that refracts light towards the front. It is obvious that the above design does not need a collimator at the inlet face due to the desired optical effects. Yet, one could be implemented on the inlet face to transmit light

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parallel the optical axis in order to provide greater illumination at different regions of the lamp dependent upon the desired optical effect and the angle of reflection.

27. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above, and further in view of Serizawa (U.S. Publication 2002/0034081).

With regards to Claim 17, Kondo teaches an optical component/light engine including a generally hemispherical inlet face [Figure 4: (7b)] centered about a light source [Figure 4: (2)], and an outlet face [Figure 4: (7d)] providing an exit for refracted light leaving the optical component/light engine [Figure 4: (7)] towards the coaxial annular reflector [Figure 1: (5)].

Kondo does not specifically teach the inlet face having coaxial annular echelons to refract light.

Serizawa discloses a vehicle lamp wherein a Fresnel lens having coaxial annular echelons [Figure 5: (32)] is provided to receive and refract light from a source [Figure 5: (28)].

It would have been obvious to modify the inlet face of Kondo to incorporate the Fresnel lens of Serizawa in order to provide more options with respect to optical characterization for a light beam.

28. With regards to Claim 18, Kondo teaches an outlet face of generally hemispherical shape centered about the light source [Figure 4: (7d)].

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29. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Serizawa as applied to Claim 17 above, and further in view of Lehman (U.S. Patent 1897202).

Kondo in view of Serizawa teach an optical component/light engine having an inlet face as described above in Paragraphs 10 and 27.

Neither Kondo nor Serizawa specifically teach a light diffusion face arranged axially opposite a central zone of the inlet face.

Lehman discloses an axially central light diffusion face [Figure 1: (4, 5)] that is opposite of a light source [Figure 1: (4)].

It would have been obvious to modify Kondo with the Fresnel lens of Serizawa to further incorporate the diffusion face of Lehman in order to prevent glare in the eyes of approaching drivers or pedestrians [see Lehman: Column 1, Lines 1-6].

30. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above, and further in view of Ferrero (U.S. Patent 4263641).

Kondo teaches an LED lighting device for a vehicle wherein there is a coaxial annular reflector as described above in Paragraph 10, whereby light is reflected in a direction forward and parallel to the optical axis of the light device.

Kondo does not specifically teach the reflector having elementary reflection facets.

Ferrero discloses a reflector [Figure 1: (4)] for vehicle indicator devices having a series of elementary reflection facets [Figure 1: (8)] that are echeloned axially toward the front and transversely outward [Figure 1].

It would have been obvious to modify the coaxial reflector of Kondo to incorporate a series of elementary reflection facets as taught by Ferrero in order to provide greater optical control and characterization for the light.

31. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above, and further in view of Ferrero (U.S. Patent 4263641).

Kondo teaches an LED lighting device for a vehicle wherein there is a coaxial annular reflector as described above in Paragraph 10.

Kondo does not specifically teach the reflector made of a transparent material (inherent that the refractive index is greater than air), the profile of a front face of the reflector being designed to refract rays of light inside the reflector, and whereby the refracted light is then reflected off a reflective surface on the rear face of the reflector.

Ferrero teaches a reflector [Figure 1: (4)] for vehicle indicator devices having a series of elementary reflection facets on a front face of the reflector [Figure 1: (8)], whereby light is refracted thereof into the reflector made of transparent material [see Abstract], and then reflected off a rear face [Figure 1: (9)]. The rear face of the reflector [Figure 1: (9)] is also made of a reflective surface [Column 2, Lines 38-64]. Though not explicitly mentioned as a reflective coating, it is commonly held within the art that such

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surfaces exist [see Kondo: Page 2, Paragraph 32]. Regardless, the embodiment of the reflector is functionally equivalent to the applicant's and a matter of design preference.

It would have been obvious to modify the coaxial reflector of Kondo to be made of a transparent material having a series of elementary reflection facets, as taught by Ferrero, in order to provide greater optical control and characterization for the light source. Such an embodiment may provide for lower manufacturing costs, prevention of corrosion, and whereby the fixing to a body of such reflectors can be made much simpler than the fixing of conventional metal reflectors since plastic material is more versatile than metal and easily modified to incorporate ribbing and/or bosses to facilitate mounting/optical effects [Column 1, Lines 22-36].

32. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Ferrero as applied to Claim 24 above, and further in view of Gotou (U.S. Publication 2001/0010636).

Kondo in view of Ferrero teach a rear face of a reflector as described above in Paragraph 31.

Neither Kondo nor Ferrero teach the rear face including a series of elementary reflection facets.

Gotou teaches a similar embodiment of a reflector further including a series of elementary reflection facets on a rear face [Figure 5: (5)].

It would have been obvious to modify the rear face of Kondo with elementary transparent reflection facets of Ferrero to further incorporate the taught by Gotou in order to provide greater optical control and characterization for the light beam. It may



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also provide a reflector with smaller thickness and a simpler construction wherein both the front and rear faces are of exact/similar dimensions.

33. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Ferrero as applied to Claim 23 above, and further in view of Gotou (U.S. Publication 2001/0010636).

Kondo in view of Ferrero teach a reflector as described above in Paragraph 31 including generally axial portions [Figure 1: (10)] and generally radial portions [Figure 1: (16)] located about a front face of the reflector to form an echelon.

Neither Kondo nor Ferrero teach the reflector having a rear face with similar/parallel dimensions to the front face.

Gotou discloses a reflector including a series of elementary reflection facets on a rear face [Figure 5: (5)] that are similar/parallel in dimension to a front face of the reflector [Figure 5: (5)].

It would have been obvious to modify the rear face of Kondo with elementary transparent reflection facets of Ferrero to further incorporate the elementary reflection facets of Gotou in order to provide a reflector with smaller thickness and simpler construction wherein both the front and rear faces are of exact/similar dimensions.

34. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Ferrero as applied to Claim 23 above, and further in view of Carel (U.S. Patent 4177505).

Kondo in view of Ferrero teach a rear face on a reflector as described above in Paragraph 31.

Neither Kondo nor Ferrero teach the rear face including a series of catadioptric patterns having two faces.

Carel discloses an indicator light incorporating a catadioptric element for an automobile [see Abstract]. Carel further teaches the catadioptric elements having prisms that are typically trirectangular trihedrons [Column 1, Line 14]. Such trihedrons may be arranged to reflect or refract according to design preference. To quote Carel, "In a usual embodiment, some of these prisms are separated by flat surfaces parallel to the outer surface of the catadioptric element so that, the catadioptric element being associated with a lamp and a reflector, the zone the flat surfaces acts as a plate with parallel faces so as to transmit the light rays from the lamp or reflected on the reflector without deflecting the direction thereof, the catadioptric prisms then functioning, for a beam of determined directions of incidence with respect to the axis of these prisms, as total-reflexion prisms [Column 1, Lines 15-25; underlines added by examiner]."

It would have been obvious to modify the rear face of Kondo with elementary transparent reflection facets of Ferrero to further incorporate the catadioptric element of Carel in order to provide greater optical control for a light beam. It is also obvious that using a catadioptric rear face of transparent material will provide a simpler construction wherein the whole of the coaxial annular reflector may be made of a single transparent material.

35. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Ferrero and further in view of Gotou as applied to Claim 26 above.

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Kondo teaches a front face of the reflector as described above in Paragraph 33. Kondo does not specifically teach the front face having a series of elementary dioptric distribution elements. However in Figure 1, Kondo illustrates a front lens including a number of dioptric elements (6a), which is commonly known within the art, for assisting vision and focusing a light. It would have been obvious to further modify the central outlet face to include multiple dioptric elements to provide a lamp with a desired optical effect in altering a light beam.

36. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo as applied to Claim 1 above, and further in view of Bitner (U.S. Patent 2215900).

Kondo teaches an optical component/light engine as described above in Paragraph 10.

Kondo does not teach the optical component/light engine integrated with a light source.

Bitner discloses a catadioptrical lens [Figure 1: (20)] wherein a light source is integrated [Figure 1].

It would have been obvious to modify the optical component/light engine of Kondo to integrate a light source in order to provide a shallow lamp with less depth for easier installation.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references have been cited to further show the state of the art relevant to the current application:

U.S. Patent 5582480 to Zwick et al.

U.S. Patent 5707130 to Zwick et al.;

U.S. Publication 2004/0027833 to Amano et al.;

U.S. Publication 2004/0120157 to Bottesch et al.;

U.S. Patent 6296376 to Kondo et al.;

U.S. Patent 4506315 to Maekawa et al.;

U.S. Patent 6273591 to Albou;

U.S. Patent 4959757 to Nakata;

U.S. Patent 6447155 to Kondo et al.;

U.S. Patent 5704709 to Zwick et al.;

U.S. Patent 2254961 to Harris;

The examiner further cites U.S. Patent 4905133 to Mayer et al. wherein a fog lamp reflector utilizes a reflector surface made up of a series of parabolic strips arranged side by side along a lateral direction; each of the strips defines a respective focus, and all of the focuses coincide at a selected point in space; and whereby the strips are aimed at multiple converging directions to laterally disperse reflected light originating at the selected point, and each of the strips defines a respective focal length [see Abstract]. The examiner cites this reference due to the similarity found in applicant's disclosure regarding anamorphosis. Please further note Mayer's

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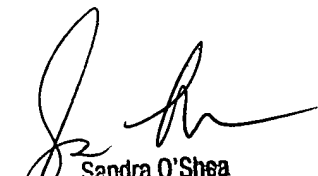
"Background of the Invention", wherein there are more citations relevant to the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH



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